

WHAT IS CLAIMED IS:

1. An optical disk having a plurality of pits indicative of information, comprising:

the shortest pit has a conical shape and its depth  
5 is smaller than a depth of a pit other than the  
shortest pit.

2. The optical disk according to claim 1, wherein  
an asymmetry of a reproduction signal is smaller than  
+0.10 and a ratio of a reproduction signal amplitude of  
10 the shortest pit relative to a signal amplitude of the  
longest pit is smaller than 15%.

3. An optical disk comprising a reflecting film  
formed on a molded substrate having pits indicative  
of information, the information being read from the  
15 reflecting film side by using a laser beam,

a cross-sectional shape of the shortest pit is  
trapezoidal in the molded substrate, and it is  
triangular on a surface of the reflecting film.

4. The optical disk according to claim 3, wherein  
20 a bottom width x of the shortest pit cross section in  
the molded substrate is as follows:

$$x = 2 \cdot d \cdot \sin\theta \text{ (within } \pm 20\%)$$

wherein  $\theta$  is a tilt angle of a wall surface of the  
shortest pit in the molded substrate, and d is a film  
25 thickness of the reflecting film.

5. The optical disk according to claim 3, wherein  
a pit cross section of a pit other than the shortest

pit has a trapezoidal shape in both the molded substrate and the reflecting film surface.

6. The optical disk according to claim 4, wherein  
a pit cross section of a pit other than the shortest  
5 pit has a trapezoidal shape in both the molded substrate and the reflecting film surface.

7. A method of manufacturing an optical disk by forming a reflecting film on a molded substrate having pits indicative of information formed thereto,  
10 the shortest pit cross-sectional shape before forming the reflecting film is trapezoidal and the shortest pit cross-sectional shape after forming the reflecting film is triangular.

8. An optical disk apparatus which reproduces  
15 an optical disk including information pits, the shortest pit thereof is formed into a conical shape,  
the optical disk apparatus is constituted so as to perform information reproduction by a PRML (Partial Response and Maximum Likelihood) method and reproduce  
20 the optical disk that an asymmetry of an information reproduction signal is +0.10 or lower.